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### REMARKS

Applicants respectfully take issue with the fact that this is a FINAL Office action. A telephone interview was held with the Examiner on June 6, 2006, but the interview was very short because the Examiner's position was a FINAL rejection can follow an amendment that makes **any change whatsoever** in the claim. For the record, that is not the law, that is not what 37 CFR specifies, and that is not the sanctioned procedure in the USPTO.<sup>1</sup> In fact, the Examiner's formal response makes the assertion that applicant's amendment necessitated the new ground for rejection, and while that is a more correct position to take, it does focus the matter on the following question: *Did the amendment necessitate the new ground for rejecting?* Applicants believe that it did not.

Clearly, if applicants' arguments in the previous Office action are directed to **other than** the amendment to the claims, **and** are valid, then the claims are patentable. To illustrate, if a claim contains elements A, B, and C, and applicants' arguments demonstrate that elements A and B are not present in the prior art, then the claims are patentable even if an amendment narrows the claim by adding element D as an additional limitation, or broadens the claim by, for example, deleting element C. In the circumstance where the amendment broadens the claim, the amendment necessitates a new search, but even in such a circumstance as long as the new search does not uncover elements A and B, the claims remain patentable. If, on the other hand, the new search uncovers a new reference that shows elements A and B (or makes them obvious) then a rejection is proper, but it is **not** proper to make the rejection FINAL. The reason is that while the broadening amendment necessitated a new search, it did not necessitate the new grounds for rejection.

In the instant case, the new ground for rejection 35 USC 103, asserting that the claims are not patentable over Chlamtac et al et al in view of Sasayama et al and further in view of Tusshima et al. Comparing this rejection to the previous one, where the claims

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<sup>1</sup> The MPEP states in section 706.07(a)

Under present practice, second or any subsequent actions on the merits shall be final, except where the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims nor based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p).

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were rejected as unpatentable over Tsushima et al in view of Sasayama et al, it is clear that the current rejection merely adds the Chlamtac et al reference, and makes it the primary reference.

While applicants' arguments about the finality of the Office action rejection apply to all of the claims, it suffices to demonstrate the Examiner's error by focusing on claim 1. Thus, it is noted that in the previous amendment applicants argued that claim 1 (prior to its amendment) is not obvious in light of the Tsushima et al and Sasayama et al combination of references because of four reasons (and a fifth one that arose from the amendment to claim 1); the first three of which are as follows:

1. Neither Tsushima et al nor Sasayama et al supply  
a wavelength stacker for stacking said plurality of serially generated packets to form a composite packet.  
The Examiner did not dispute this assertion in the Response to Arguments section, and the Examiner does not assert that the Chlamtac reference supplies this limitation. Therefore, regardless of the nature of the amendment, the claim is patentable.
2. The Tsushima et al node does not create any information packets by the use of a laser; fixed or tunable, and there is no motivation for introducing into the Tsushima et al node a tunable laser like the one employed by Sasayama et al. Here, too, the Examiner did not dispute this assertion in the Response to Arguments section, and the Examiner does not assert that the Chlamtac reference supplies this limitation. Therefore, regardless of the nature of the amendment, the claim is patentable.
3. There is absolutely no purpose to incorporating the tunable laser teaching of Sasayama et al because there is no need for a laser unless in Tsushima et al. Here as well, the Examiner did not dispute this assertion in the Response to Arguments section, and the Examiner does not assert that the Chlamtac reference supplies this limitation. Therefore, regardless of the nature of the amendment, the claim is patentable.

Based on each one of the above three arguments, amended claim 1 should have been allowed.

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Of course, the Examiner is free to dispute any of the above arguments, and the Examiner is also free to assert that the Chlamtac et al reference overcomes all of those arguments; but then the Examiner is obliged to assert so explicitly, and provide support for this assertion. In such a circumstance, however, applicants are entitled to respond as a matter of right, which means that a rejection cannot be made FINAL.

In light of the above, it is respectfully submitted that the finality of the instant Office action is an error, and it is respectfully requested that it be withdrawn.

The following addresses the instant rejections on their merits.

Claims 1, 3-8, 12, and 14 were rejected under 35 USC 103 as being unpatentable over Chlamtac et al (Article titled "Scalable WEM access network architecture based on photonic slot routing" in view of Satsayama et al, US Patent 5,493,434 and further in view of Tsushima et al, US Patent 5,600,466. Applicants respectfully traverse.

With reference to claim 1, the Examiner asserts that Chlamtac et al teach an optical ring network with nodes, and with at least one of the nodes having a 2x2 optical crossbar switch (i.e., Chlamtac et al teach the preamble and the first element of claim 1). The Examiner admits that Chlamtac et al do not teach a rapidly tunable laser and a stacker. The Examiner now asserts, however, that Satsayama et al disclose use of a tunable laser, and that Tsushima et al disclose a wavelength stacker. The Examiner concludes that it would have been obvious to combine all of the references, and that such combining would result in an arrangement as defined in claim 1. Applicants respectfully disagree.

First, applicants respectfully disagree with the assertion that the Tsushima et al reference teaches a stacker, which is an element that for "stacking said plurality of serially generated packets to form a composite packet." In support of his assertion the Examiner points to FIG. 7 of the reference and, in particular, to the "combination of delay element 14 and the DEMUX, and combiner." Applicants respectfully disagree that the pointed to elements describe a stacker; particularly a stacker as defined in claim 1. FIG. 7 of the reference shows a terminal station that begins with DEMUX 13 and ends with COMBINER 26 (if one were to ignore the incoming and outgoing amplifiers). The input to the terminal station is a train of time slots where each time slot contains a collection of packets, each of which being at a different wavelength. The output of the terminal station

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is also a train of time slots where each time slot contains a collection of packets, each of which being at a different wavelength. In between, element 14 provides a different delay for the packets of different wavelengths, and circuitry between element 14 and combiner 26 extracts some packets and/or adds some packets. The terminal station of FIG. 7 does not have a flow of “serially generated” packets that are applied to any element (or collection of elements) and which “stacks” those “serially generated” packets to form “composite packets.” Therefore, it is respectfully submitted that the station terminal of FIG. 7 is NOT a stacker.

The Examiner also pointed to FIGS. 4a through 4f for the proposition of “composite packets.” Applicants respectfully disagree with this characterization. FIGS. 4a through 4f show the existence of packets in a given time slot, where the packets have different wavelengths, but nowhere are they considered as a unit – a composite packet. In any event, as demonstrated above, Tsushima et al do not teach a stacker as defined by claim 1.

Second Sasayama et al teach the use of a tunable laser, but in particular, Sasayama et al’s describe an arrangement where arriving information packages are modulated into “an arbitrary unused frequency channel” (col.12, lines12-13) and stored in one of a plurality of storage devices. Successive information package are not necessarily stored in a given device, and are not necessarily of different frequency channel. The whole storage regimen in the Sasayama et al system is ultimately controlled by the sequence of information packages that are extracted from the collection of the storage devices, because that controls the color slots that become available. It is also noted that this extraction is of one information package at a time. Thus, though Sasayama et al describe a tunable laser, it is clear that they do not describe a tunable laser that is “serially generating a plurality of packets, each packet being generated at a different wavelength” (emphasis supplied). In other words the Sasayama et al reference does not teach the tunable laser limitation of claim 1.

Third, applicants respectfully submit that there is no motivation for combining the teachings of Sasayama et al with the teachings of Chlamtac et al. There is nothing in Chlamtac et al that suggests any benefit to the system proposed by Chlamtac et al from

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the use of a tunable laser; and certainly not the use of a tunable laser to serially generate a plurality of packets, each packet being generated at a different wavelength.

Fourth, while a person skilled in the art may wish to use the teachings of Tsushima et al in combination with the Chlamtac et al teaching to somehow replace the electronic logic of FIG. 2 of the Chlamtac et al reference -- because that is the functionality that Tsushima et al teach -- such a combination will not employ a stacker because the Tsushima et al reference does not teach a stacker, and there would be no stacking action.

Thus, there is nothing in Chlamtac et al to suggest that it might benefit from the serial creation of packets, each having a different wavelength and the creation of a composite packet by means of a stacker; and even if such a benefit would be somehow suggested in the Chlamtac et al reference, it is respectfully submitted that the teachings of Sasayama et al and Tsushima et al would not be the teachings that would be helpful.

For the above reasons, it is respectfully submitted that claim 1 is not obvious in view of the Chlamtac et al, Sasayama et al and Tsushima et al combination of references. Given that claim 1 is not obvious in view of the cited references, it follows that all claims that depend on claim 1 are also not obvious in view of the cited references.

The above arguments relative to claim 1 apply to claim 14. To expedite prosecution, claims 12 and 13 are canceled without prejudice.

Regarding claim 3, the Examiner asserts that FIG. 8 of Tsushima et al teach an unstacker. Aside from the continued lack of motivation, applicants respectfully submit that FIG. 8 of Tsushima et al does not teach an unstacker. The Examiner did not explain why he believes that FIG. 8 teaches an unstacker, so applicants are left to guess. Applicants' guess is that FIG. 8 shows an element 33 with a number of inputs, and a single output (connected to element 21). That element could constitute an unstacker in the sense that a plurality of packets are applied simultaneously to element 33, and there is only one output lead. However, this element is NOT an unstacker because it does not communicate all of the incoming packets to the output. Rather, this element is a switch (and is so designate quite clearly) that selects one of the inputs and communicates the signal of that selected input to the output. Accordingly, it is respectfully submitted that claim 3 is not obvious in view of the cited references by virtue of its stated limitation;

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over and above the fact that claim 3 is not obvious in view of the cited references by virtue of its dependence on claim 1.

Claims 2, 11, and 13 were rejected under 35 USC 102 as being unpatentable over the above-identified references combined with Mizrahi, US Patent 5,748,349. The Examiner asserts that it would have been obvious to use FBGs and optical circulators, disclosed by Mizrahi, in Clamtac et al, Sasayama et al, and Tsushima et al. Applicants respectfully traverse. This broad-brush assertion by the Examiner hides the fact that claim 2 specifies the structure of the stacker, and therefore whether FBGs and optical circulators are used in the Chlamtac et al teaching, or Sasayama et al teaching is totally irrelevant. The Examiner asserts that Tsushima et al teaches a stacker, so the Examiner must somehow assert, and presumably explain, why and how a skilled artisan would be motivated to use FBGs and optical circulators in the Tsushima et al reference – even if Tsushima et al reference did disclose a stacker, which in applicants' view it does not. Applicants respectfully submit that Tsushima et al does not describe a stacker, and there is no motivation for using FBGs and circulators in Tsushima et al in any event. Therefore, it is respectfully submitted that claim 2 is not obvious in view of the cited references. The same argument applies to claim 11.

A terminal disclaimer is enclosed.

In view of the above remarks, applicants respectfully submit that all of the Examiner's rejections have been overcome. Reconsideration and allowance are respectfully solicited. In the event the Examiner still believes that the claims are not allowable, applicants reiterate their request that the finality of the current Office action be withdrawn and respectfully request that the Examiner explicitly rebut applicants' arguments.

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